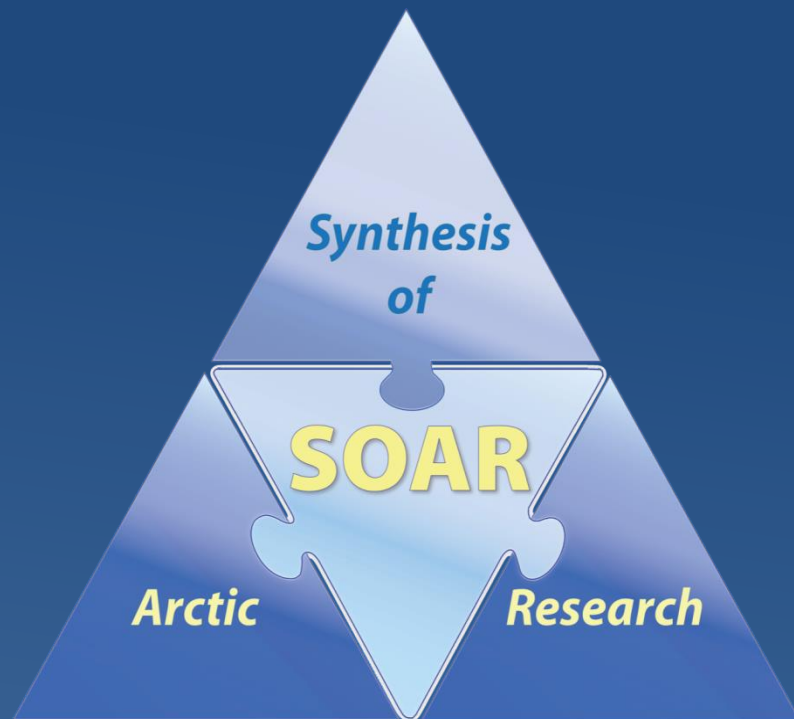


Synthesis of Arctic Research (SOAR) Status and Plans

Sue Moore, NOAA/NMFS
Phyllis Stabeno, NOAA/OAR
Lisa Guy, NOAA/UW-JISAO



mini- AMSS: 22 April 2015

SOAR OVERVIEW

- **WHO:** *BOEM-funded program; Heather Crowley, COR
10 member Science Steering Committee, meets annually*
- **WHAT:** *Synthesis of marine science data & observations, published as
peer-reviewed papers*
- **WHERE:** *Focus is US waters of the Pacific Arctic Region (PAR)*
- **WHY:** *Improve understanding of the PAR marine ecosystem*
- **WHEN:** *5-year project (2011 – 2016) in 2 Phases
Phase I: 2011-14 - what's done
Phase II: 2015-2016 – what's next*

<http://www.arctic.noaa.gov/soar/>

2011-14: Key Milestones

2011: Convene Science Steering Committee – plan SOAR Phase I

MARCH 2012

Science Workshop

Synthesis Themes
Project Teams (PT)

2012-2013

Integration & Analysis

PT Proposals = \$\$
Quarterly Updates

2014-15

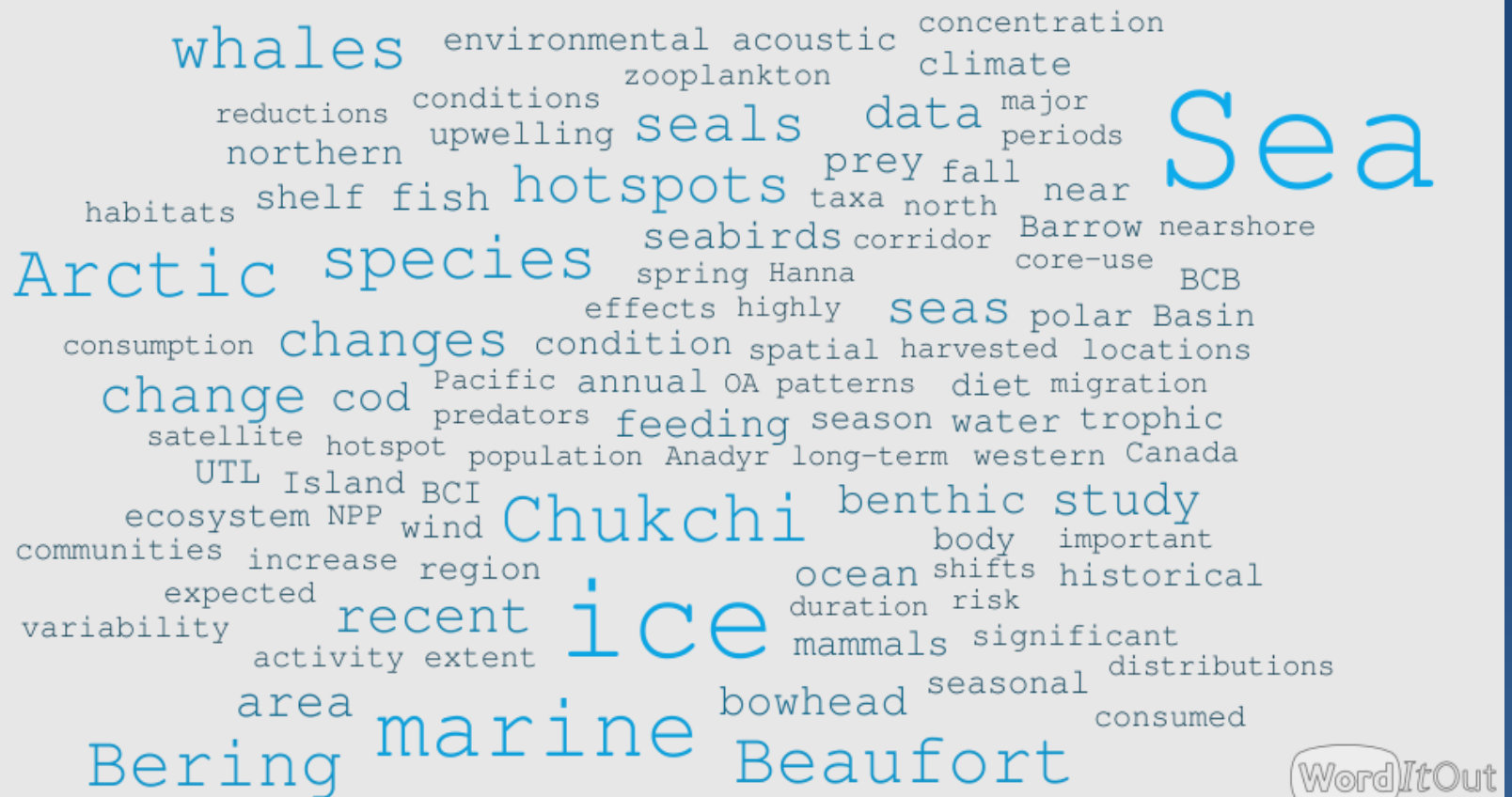
Science Products

Manuscript Submissions
Science Presentations
Education Outreach



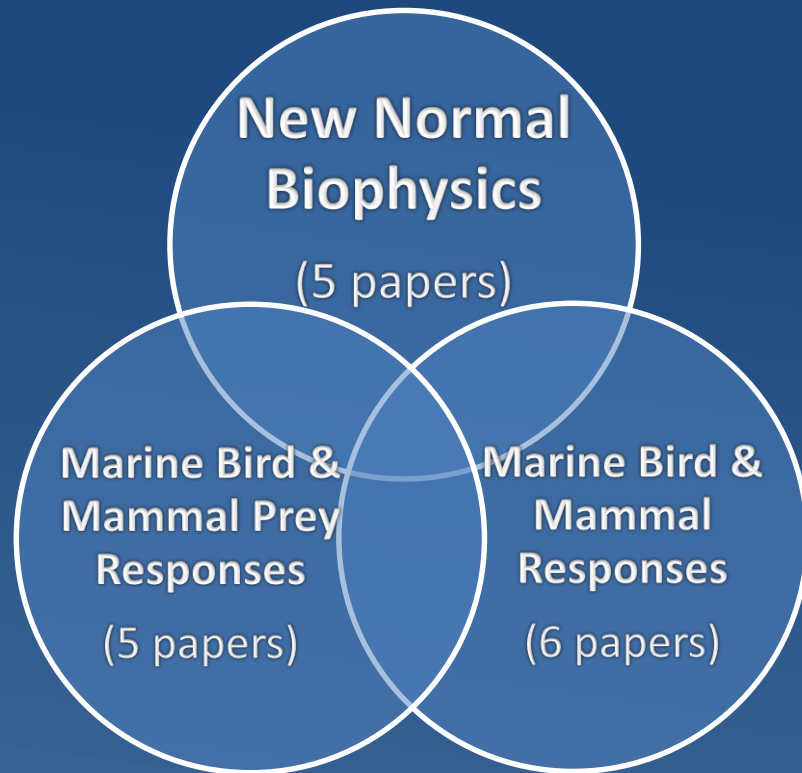
Coordination with PacMARS

SOAR Status after the March 2012 Science Workshop



2012-2015: Synthesis teams form, meet, analyze data, prepare & submit manuscripts

SOAR Papers: 3 Themes - Lead Authors



- **Bio-physics of the ‘New Normal’ Pacific Arctic**
Arrigo, Frey, *Mathis, Wood
- **Marine Bird & Mammal Prey Responses**
Grebmeier, Logerwell, Crawford, Divoky, Lovvorn
- **Marine Bird & Mammal Responses**
*Citta, Clark, George, Harwood, Kuletz, MacIntyre

Progress in Oceanography, Special Issue

* Published on-line, Open Access

16 papers; 111 Authors; > 30 institutions

SOAR PHASE I: Theme Highlights

<http://www.arctic.noaa/soar/>



• THEME 1:

'New Normal' PAR: Sea Ice & 1^o Productivity
Ocean Acidification Risk Assessment for
Alaskan waters

• THEME 2:

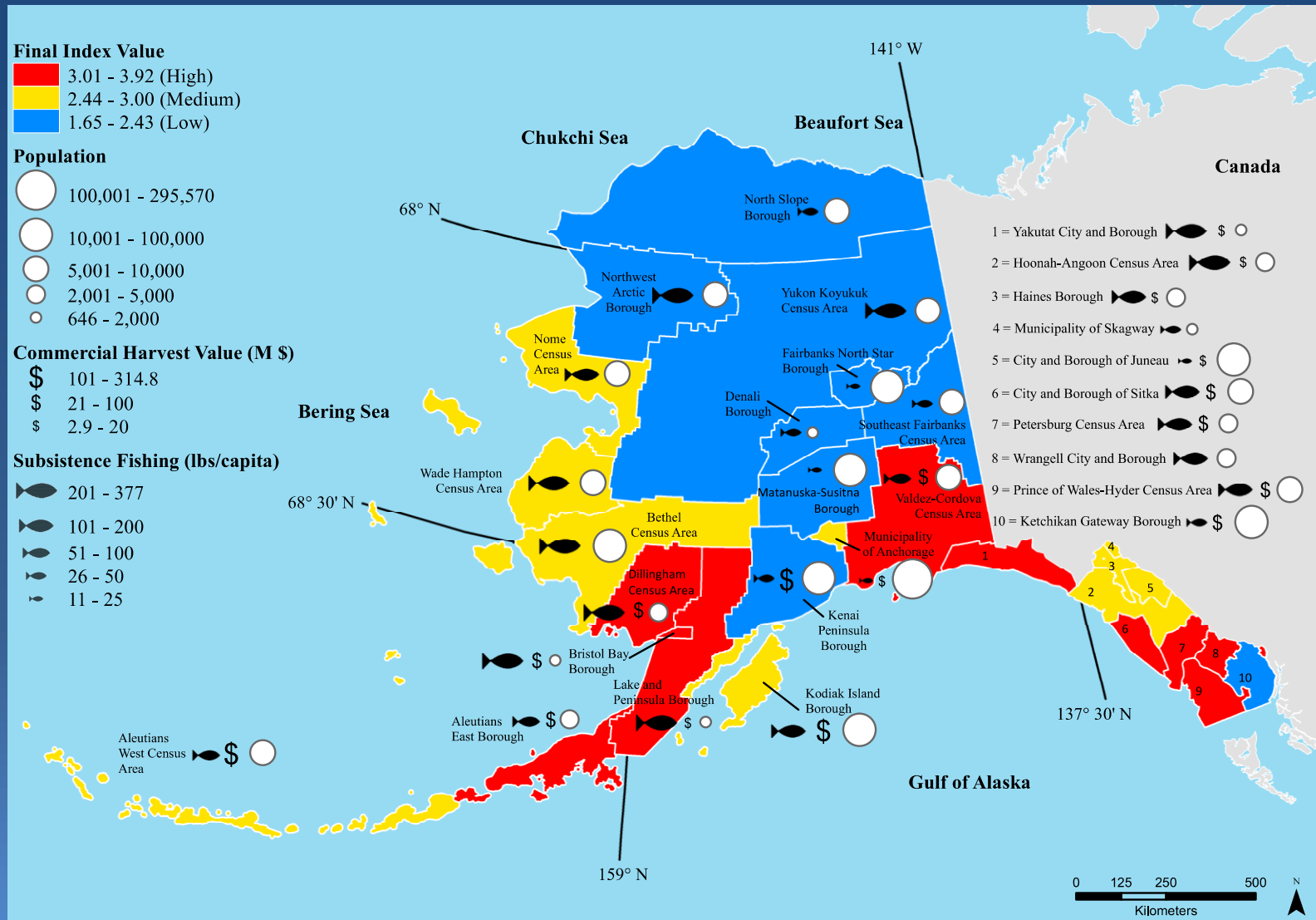
Benthic Hotspots across space & time
Fish Communities across a habitat spectrum
Diets of marine birds & seals, local & regional

• THEME 3:

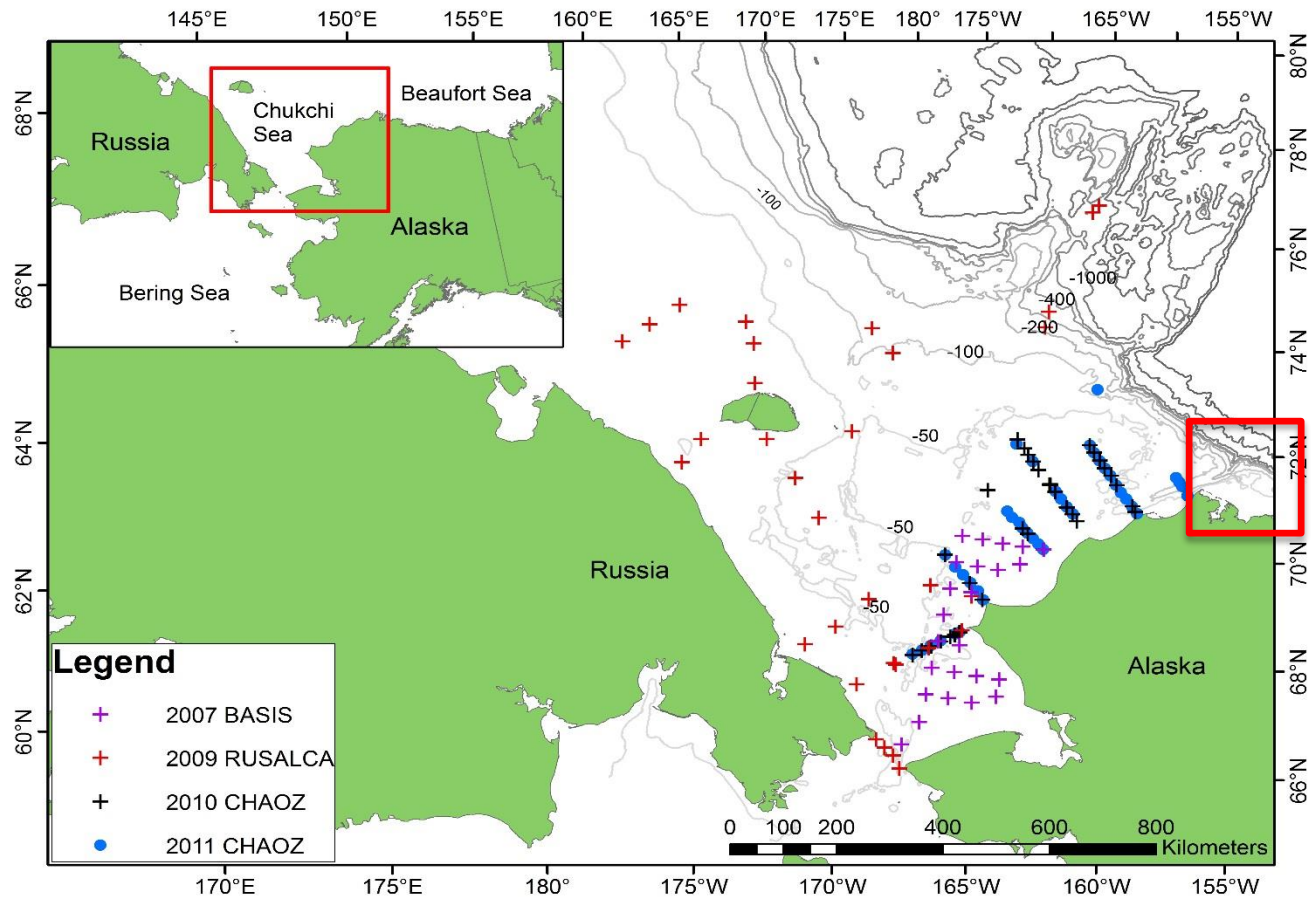
Bowhead whale core-areas & body condition
Bowhead & bearded seal acoustic ecology
Seabird & marine mammal seasonal hotspots
Upper-trophic species as ecosystem sentinels



*Mathis et al. OA Risk Assessment: ocean chemistry, fisheries harvest & demographics

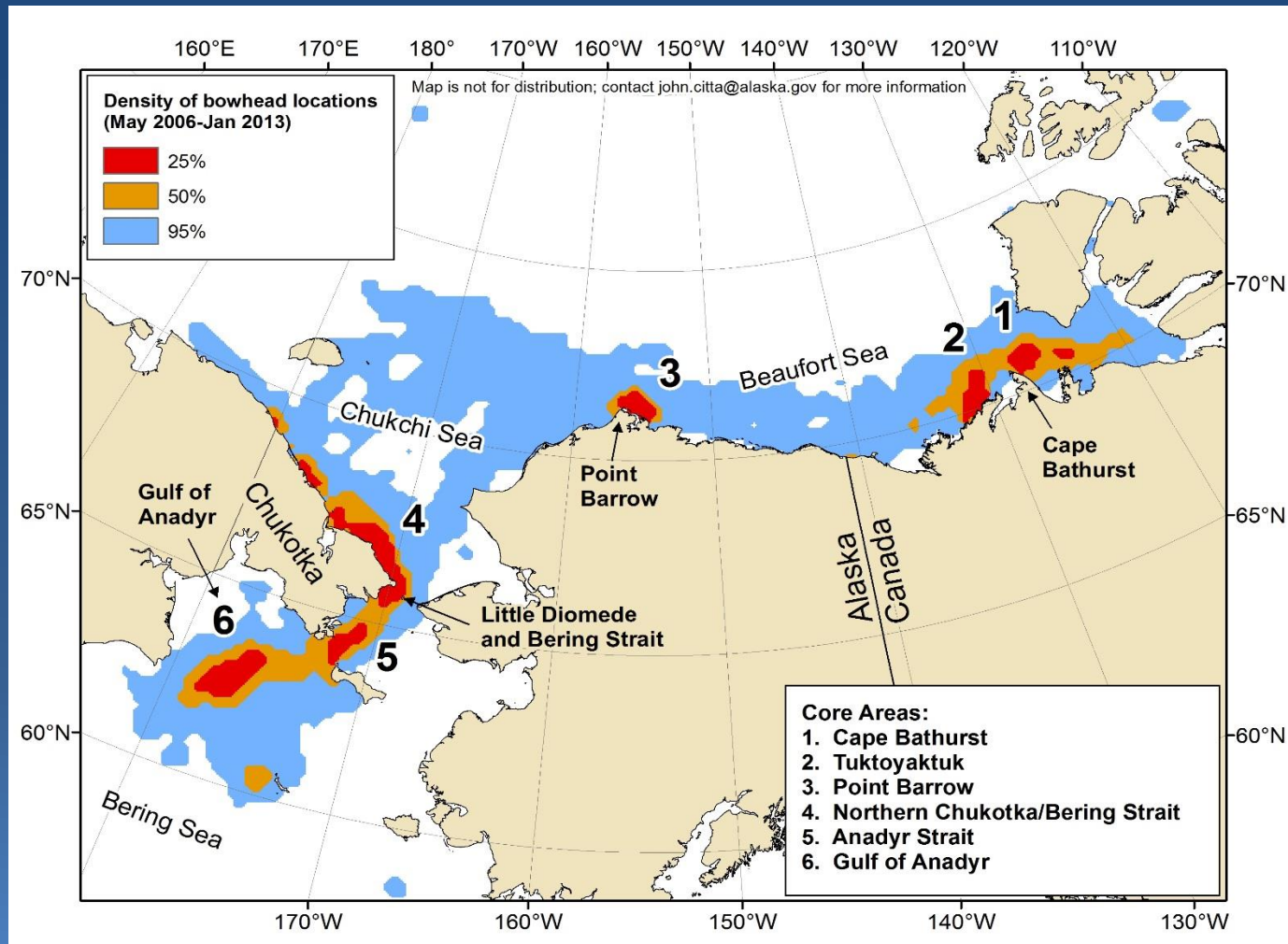


Logerwell et al. Fish Communities across a habitat spectrum



Stations sampled by ichthyoplankton nets...to coastal trawls & fyke nets

*Citta et al. Bowhead Whale Core-Use Areas: 54 tagged whales 2006-12



SOAR Phase II

Goal

- Expand and build upon SOAR Phase I findings

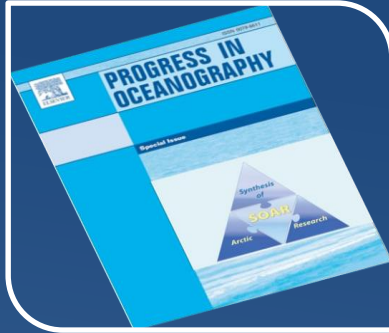
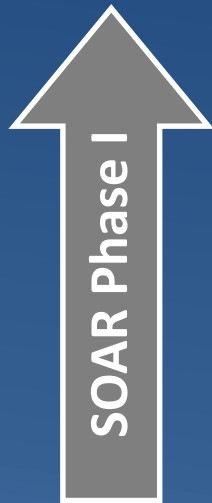
Product

- Publication of a 6-8 papers 'Theme Section' in peer-reviewed journal

Timeline

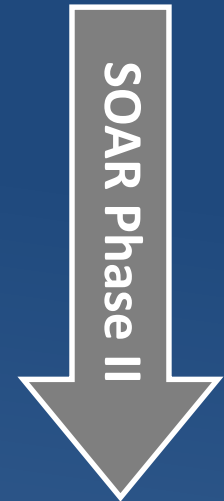
- January 2015 – May (or Sep) 2016

The 2-Phases of SOAR (bottom up/top down)



SOAR Special Issue
Project Teams
Community
Workshop

SOAR Theme Section
Topic Champions
Synthesis Topics



THANKS TO:

BOEM

Heather Crowley

Charles Monnet (retired)

AUTHORS &

PROJECT LEADERS

– they have done (are doing) all the heavy lifting



